Application No. 80038

APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF NEVADA

THIS SPACE FOR OFFICE USE ONLY

Date of Filing in State Engineer's Office JUL 27 2010

Returned to applicant for correction _____

Corrected Application filed _____ Map filed JUL 28 2010 under 80028

The applicant Patua Project, LLC

9670 Gateway Drive, Suite 200 (Street Address or P.O. Box) of Reno (City or Town)

NV, 89521 (State and ZIP Code) hereby make(s) application for permission to appropriate the public waters of the State of Nevada, as hereinafter stated. (If applicant is a corporation, give date and place of incorporation; if a copartnership or association, give names of members.)

February 23, 2007, State of Nevada

1. The source of water is Geothermal Reservoir
   (Name of the stream, lake, underground, spring or other sources.)
2. The amount of water applied for is 8,300 gallons per minute (18.493 second feet)
   (One second foot equals 448.83 gallons per minute.)
   (a) If stored in a reservoir give the number of acre-feet _____
3. The water is to be used for ~~Other~~ Industrial (Power plant cooling) REL
   (Irrigation, power, mining, commercial, domestic or other use. Must be limited to one major use.)
4. If use is for:
   (a) Irrigation, state number of acres to be irrigated _____
   (b) Stockwater, state number and kind of animals _____
   (c) Other use (describe fully in No. 12) See Attachment A
   (d) Power:
      (1) Horsepower developed _____
      (2) Point of return of water to stream _____

Revised 07/09

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5. The water is to be diverted from its source at the following point: (Describe as being within a 40-acre subdivision of public survey, and by course and distance to a found section corner. If on unsurveyed land, it should be so stated.)

Point of diversion is located within the SE1/4 SE1/4 Section 20, T20N, R26E, MDB&M. The found northwest corner of Section 20, T20N, R26E, MDB&M, is located, from the point of diversion, at a bearing of N40deg.23min.35sec.W and a distance of 6456.26 feet.

6. Place of use: (Describe by legal subdivision. If on unsurveyed land, it should be so stated)

Geothermal power generation facility situated in the SE1/4 NW1/4, NE1/4 SW1/4, NW1/4 SW1/4, and SW1/4 NW1/4 Section 21, T20N, R26E, MDB&M.

7. Use will begin about January 1 (Month and Day) and end about December 31 (Month and Day) of each year.

8. Description of proposed works. (Under the provisions of NRS 535.010 you may be required to submit plans and specifications of your diversion or storage works.) (State manner in which water is to be diverted, i.e. diversion structure, ditches and flumes, drilled well with a pump and motor, etc.)

Geothermal fluid from the geothermal reservoir will be diverted via drilled geothermal production wells, fitted with downhole pumps and motors, and routed to the place of use via a system of above-ground pipelines.

9. Estimated cost of works: $30,000,000.00

10. Estimated time required to construct works: Two (2) years (If the well is complete, describe works.)

11. Estimated time required to complete the application of water to beneficial use: Five (5) years

12. Provide a detailed description of the proposed project and its water usage (use attachments if necessary): (Failure to provide a detailed description may cause a delay in processing.)

See Attachments

13. Miscellaneous remarks:

Patua Project, LLC may require up to approximately 8,300 gpm of geothermal fluid, from the geothermal reservoir, for power plant cooling purposes. The required geothermal fluid will be produced from one or a combination of wells within the geothermal well field, which includes the well that is the subject of this application, whose point of diversion is described in 5 above. Fourteen additional wells with unique points of diversion are the subjects of other applications.

kbonin@vulcanpower.com
E-mail Address

(775) 284-8842
Phone No.

APPLICATION MUST BE SIGNED BY THE APPLICANT OR AGENT

Kenneth Bonin, Sr.
Type or print name clearly

Signature, applicant or agent

Patua Project, LLC
Company Name

9670 Gateway Drive, Suite 200
Street Address or PO Box

Reno, NV 89521
City, State, ZIP Code

Revised 07/09 $300 FILING FEE AND SUPPORTING MAP MUST ACCOMPANY APPLICATION

Protested: September 24, 2010, by David F. Stix, Deena E. and Timothy Edmonston

Pro. Overruled 4/28/11 See Ruling #6108

[redacted]

ATTACHMENT A

Description of Proposed Project, Geothermal Fluid Usage, & Public Benefit

Patua Project, LLC is developing a nominal 60 MW net geothermal electrical generation facility known as the Patua Geothermal Project. The location of the project is approximately seven miles east of Fernley, Nevada. The project area straddles the Carson Desert (101) and Fernley (76) groundwater basins. Exploration of the geothermal resource to be utilized by the facility is ongoing, however, it is understood that the resource characteristics are sufficient to support a "binary" geothermal facility. The facility cooling system will utilize geothermal fluids, from the geothermal reservoir, which will be retrieved from one or a combination of wells in the geothermal well field. The geothermal fluid will be directed to the facility though a system of pipe lines, where it will become combined with geothermal fluids produced from other wells for a combined total of up to approximately 8,300 gpm, which will eventually end up in the cooling tower. Attachment B depicts the proposed geothermal well field.

During the cooling process, geothermal fluid from the cooling tower is pumped to the condenser where it is used to condense the working fluid vapor from the turbine exhaust. After passing through the condenser, a portion of the geothermal fluid, known as "blowdown", is reinjected to the reservoir in order to maintain optimal levels of dissolved solids in the circulating cooling fluid flow. The remainder of the cooling fluid will return to the cooling tower where some of it will be evaporated. Blowdown and evaporation represent losses to the total circulating cooling fluid flow that must be supplemented during operation by a continuous supply of "make-up" fluid, equal to the sum of blowdown and evaporation. Currently, the exact quantity of make-up fluid that will be required for the cooling process is unknown and is ultimately a function of many variables, including, but not limited to, resource temperature and pressure, total dissolved solids, and the specific condenser technology employed at the facility, which varies among the various manufacturers of geothermal facilities. Although the exact quantity of make-up fluid cannot be determined at this time, a general rule-of-thumb is that it would not exceed twenty (20) percent of the total production rate of geothermal fluid from the reservoir. Attachment C depicts the cooling process assuming that the geothermal fluid needed for electricity generation and make-up fluid, combined, does not exceed 41,500 gpm.

Benefits of geothermal power include increased availability of renewable energy, diversified domestic baseload power generation, low greenhouse gas emissions, increased revenue for State of Nevada, and local governments, potential increased revenue to several types of local businesses, as well as, temporary and permanent employment opportunities for local residents. Temporary employment will include numerous types of construction and construction support positions. The permanent employment opportunities span across a large range of skill levels. Positions will include various types of skilled labor (mechanics, electricians, engineers, plant operators, scientists, etc.), administrative labor (secretarial, accounting and other office work), general labor (technical support, janitorial, etc) as well as managerial and supervisory positions. The expected life of the project is 30 years; however, it is likely that the project will have an even longer useful lifetime.

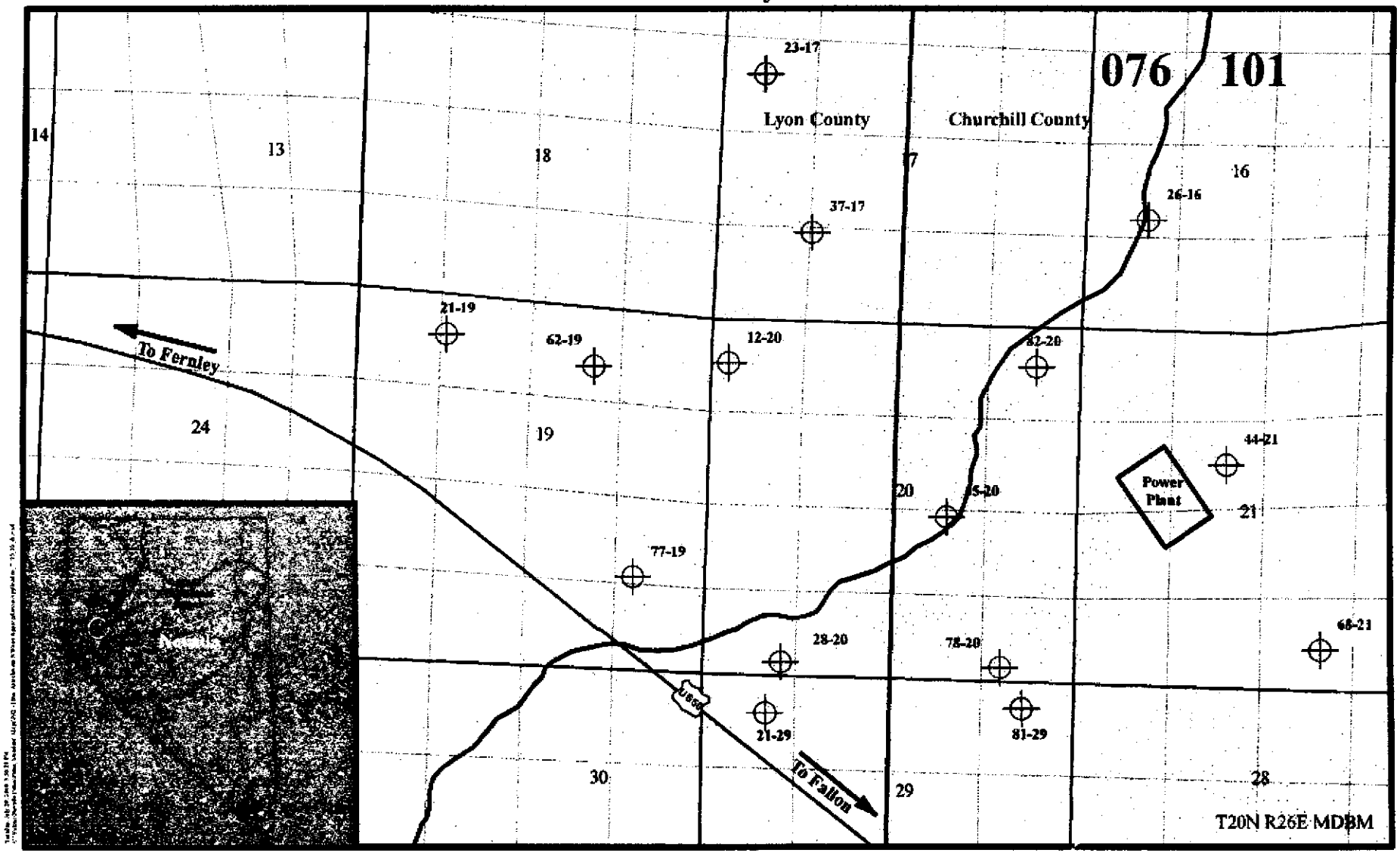
Patua Geothermal Project
State of Nevada
Water Appropriation Application

ATTACHMENT B

Patua Geothermal Project Overview

[redacted]

7/20/10



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Legend

- Approximate Quarter/Quarter Sections
- Section lines
- County Line
- Nevada Groundwater Basin Boundary
- Well Locations
- Power Plant Location

N W E S

0 1,500 3,000 Feet

Aerial Photo from http://[redacted]
Section boundaries BLM 1:24K PLSS http://[redacted]
The contents of this map are approximate [redacted] subject to change

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Patua Geothermal Project
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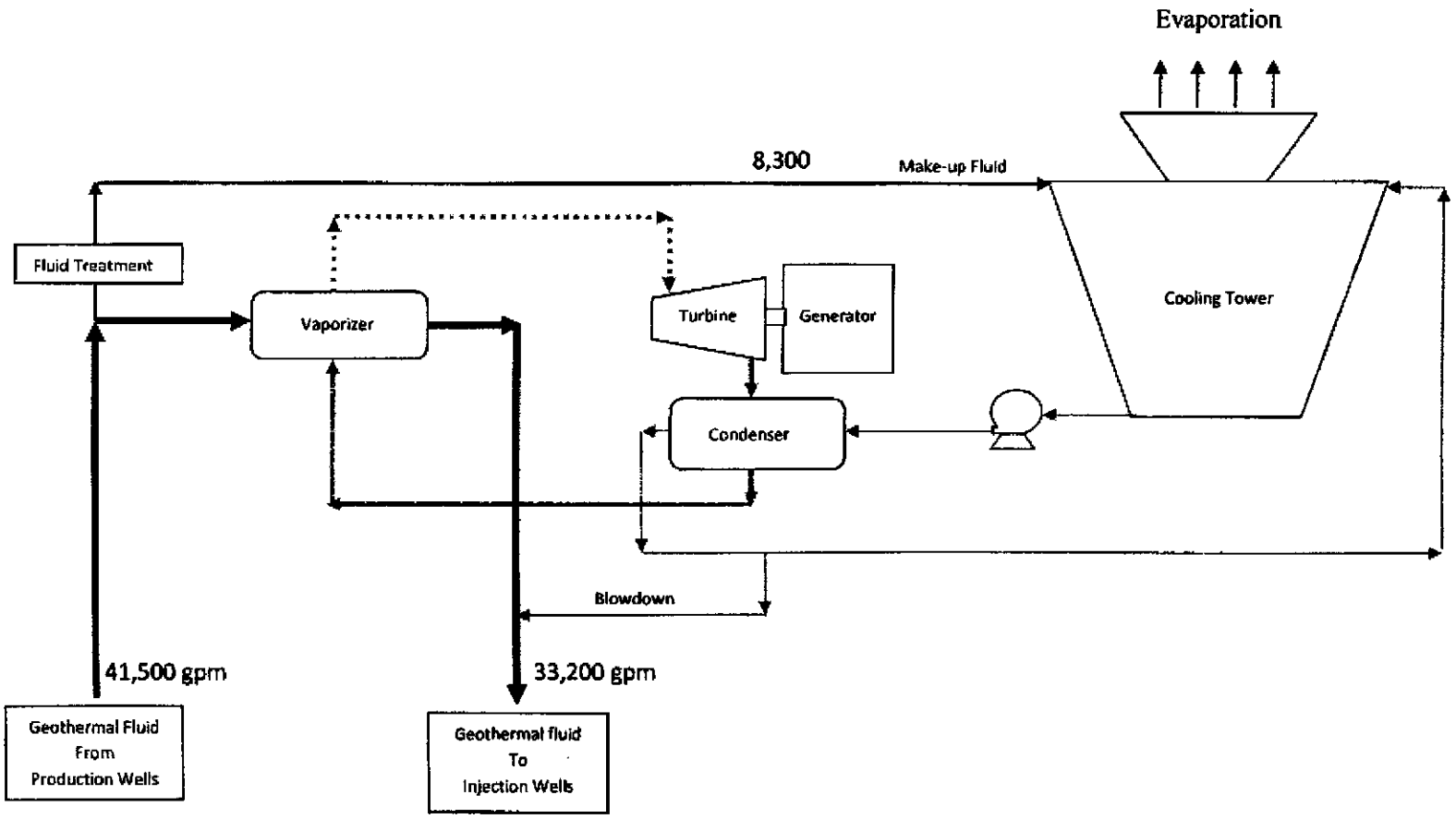
ATTACHMENT C



Geothermal Fluids

Isopentane

Cooling fluid

Binary Geothermal Fluid Cooled
Nominal 60 MW net

* Geothermal Fluids used as cooling fluid diverted before power plant heat exchange.